LEVITIN, M.A.

[Quality indices of radio receivers] Kachestvennye pokazateli radiopriemnikov. Moskva, Gos. energ. izd-vo, 1953. 23 p. (MLRA 6:9)
(Radio--Receivers and reception)

LEVITIN, Ye.A.; BERLIANT, I., redaktor; BARSUKOVA, Yu., tekhnicheskiy redaktor.

[Radio receivers; repair and adjusting] Radioveshchatel'nye lampovye priemniki. Remont i nalazhivanie. Moskva, Vses. kooperativnoe izd-vo, 1953. 432 p. (MLRA 7:8)
(Radio--Receivers and reception)

LEVITIN, Ye.

Diode vacuum tubes. Radio no.7:52-56 Jl '53. (MLRA 6:7)
(Vacuum tubes)

LEVITIN, Ye.

Triodes. Radio no.8:52-56 Ag '53. (MLRA 6:8)
(Vacuum tubes)

Elementary explanation of the operation of triodes, intended for novice radio amateurs. Includes a drawing of a 100-kw transmitting tube and characteristics of the filament-type triodes 6S2S, 6S5, 6N5S, 6N7S, 6N8S, 6N9S, 6N1P, 6N2P, 6N15P, twin triodes 6G2 and 6G7, and the directly-heated tubes 6S4S (a triode) and 1N3S (a twin triode).

261T79

LEVITIN, Ye.

Multielectrode tubes. Radio no.9:52-56 S '53. (MLRA 6:8)
(Vacuum tubes)

LEVITIN, Ye.

Optical tuning indicator. Radio no.12:45-46 D '53. (MLRA 6:12)
(Radio--Apparatus and supplies)

LEVITIN, Ye.A.; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; YELIN, O.G., redaktor; KULIKOVSKIY, A.A., redaktor; MOZHZHEVELOV, B.N., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; SPIZHEVSKIY, I.I., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor.

[Superheterodyne] Supergeterodin. Moskva, Gos. energ. izd-vo, 1954. 11 p. (Massovaia radiobiblioteka, no. 200) [Microfilm] (MLRA 7:11)
(Radio--Receivers and reception)

LEVITIN, Yefim Alekseyevich; KUBARKIN, L.V., redaktor; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; YELIN, O.G., redaktor; KULIKOVSKIY, A.A., redaktor; MOZHZHEVELOV, B.N., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; VORONIN, K.P., tekhnicheskiy redaktor.

[Electron tubes] Elektronnye lampy. Pod red. L.V.Kubarkina. Moskva, Gos.energ. izd-vo, 1954. 101 p. (Massovaia radiobiblioteka, no.209) [Microfilm] (MLRA 8:2)

(Electron tubes)

USSR/ Electronics - Measuring instruments

Card 1/1 Pub. 89 - 21/27

Authors : Levitin, E.

Title : Measurements and measuring devices for a radio amateur

Periodical : Radio 2, 47-51, Feb 1954

Abstract : Various measurements and the construction and operation of measuring devices, adequate for radio amateurs, are discussed. Pictures; diagrams; table.

Institution: .....

Submitted: .....

USSR/Electronics

Card 1/1

Author : Levitin, E.

Title : Measurements in the practice of a radio amateur

Periodical : Radio, 3, 57 - 60, Mar, 1954

Abstract : Methods of measuring resistances in the practice of a radio-amateur are described. Diagrams and an illustration of the MMB bridge are given.

Institution : .....

Submitted : .....

USSR/ Electronics - Measuring

Card : 1/1

Authors : Levitin, E.

Title : Practice Used by Radio Amateurs in Taking Measurements (Capacitance and Inductance Measuring)

Periodical : Radio, No. 4, 55 - 59, April 1954

Abstract : The article describes in detail the voltmeter-ammeter method, the bridge method, and the resonance method, employed by radio amateurs in measuring capacitances and inductances. The microfarad-meter, also used for measuring inductances, is described as well. Nine diagrams, two tables and one practical example of measuring inductance are included.

Institution : .....

Submitted : .....

LEVITIN, E.

USSR/ Electronics - Voltmeters

Card 1/1 ; Pub. 89 - 25/29

Authors ; Levitin, E.

Title ; Measurement-taking in radio amateurs' practice

Periodical ; Radio 7, 53-55, July 1954

Abstract ; Several variants of a tube voltmeter used by radio amateurs for measuring voltages of radio equipment with a minimum effect on the equipment's circuit, are described. Improved types of tube voltmeters using a compensating current, in order to eliminate the adverse effect of the initial current flowing the tested radio equipment, are discussed. The advantages of the "compensatory" type voltmeters over the ordinary tube voltmeters and their range of operation are set forth. Theoretical principles are explained and instructions for operating the voltmeters are given. Circuit diagrams.

Institution : ...

Submitted : ...

USSR/Electronics - R-F Meter-oscillators

Card 1/1 Pub. 89 - 25/29

Authors : Levitin, E.

Title : Measuring instruments in the radio-amateur practice

Periodical : Radio 9, 54-56, Sep 1954

Abstract : Specifications for an oscillator, used by radio-amateurs for taking measurements, are given. Various block and circuit diagrams, showing examples a radio amateur may encounter in taking measurements, are presented. Diagrams.

Institution : ...

Submitted : ...

USSR/ Electronics - Measuring instruments

Card 1/1 : Pub. 89 - 25/26

Authors : Levitin, E.

Title : Taking measurements in radio-amateur practice

Periodical : Radio 12, 57-59, Dec 1954

Abstract : Two basic types of measuring instruments, namely, audio oscillators and oscillographs and their variants are discussed and their uses enumerated. A simple type A-F oscillator, set for one fixed frequency, and an RC-type oscillator, are presented and a formula is given for determining the frequency of the signal generated. The practical application of the oscillograph, either as an AC voltmeter or for determing the frequency of an unknown voltage by evaluating the so-called Lissajous curves traced on the screen, is discussed and the method used for computing the desired values is explained. Circuit and block diagrams; graph.

Institution : .....

Submitted : .....

LEVITIN, Yefim Alekseyevich; KOHASHINSKIY, D.A., redaktor; BERG, A.I., redaktor; DEMIOTT, I.S., redaktor; YELIN, O.G., redaktor; KULIKOVSKIY, A.A., redaktor; MOZHZHEVELOV, B.N., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor. VORONIN, K.P., tekhnicheskiy redaktor.

[Tuning of radio receivers] Nalazhivanie priemnikov. 2-e izd., perer. Moskva, Gos. energ. izd-vo, 1955. 87 p. (Massovaia radiobiblioteka, no. 225) (MLRA 9:2)
(Radio -- Receivers and reception)

SHADOV,R.; CHECHIK,P.O.[translator]; BERG,A.I., redaktor; DZHIGIT,I.S., redaktor; YELIN,O.G., redaktor; KULIKOVSKIY,A.A., redaktor; MOZHZHENVELOV,B.N., redaktor; SMIRNOV,A.D., redaktor; TARASOV,F.I., redaktor; TRAMM,B.F., redaktor; SHAMSHUR,V.I., redaktor;LEVITIN, Ye.A., redaktor; VORONIN,K.P., tekhnicheskiy redaktor

[Testing apparatus for repairing radio receivers. Translated from the German] Ispytatel'naia apparatura dlia remonta priemnikov. Perer.perevod s nemetskogo P.O.Chechika. Moskva, Gos.energ.izd-vo 1955. 125 p. (Massovaia radiobiblioteka, no.232) (MLRA 9:3)
(Radio--Receivers and reception)

LEVITIN, E.

Levitin, E. Measuring devices for the work of radio amateurs. p. 36. RADIO. Sofiya, Vol. 4, no. 1, 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.

KURARKIN, Leontiy Vladimirovich; LEVITIN, Yefim Alekseyevich; KULIKOVSKIY, A.A., redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[Radio engineering made interesting] Zanimatel'naia radiotekhnika. Moskva, Gos. energ. izd-vo, 1956. 263 p. (Massovaia radiobiblioteka, no.249) (MLRA 9:11)
(Radio)

LAVITIN, Yefim Alekseyevich; BERLYANT, I.Ya., redaktor; TSIRUL'NITSKIY, N.P., tekhnicheskiy redaktor

[Radio receivers; repair and adjustment] Radioveshchatel'nye lampovye priemniki; remont i nalazhivanie. Perer. i dop. izd. Moskva, Vses. kooperativnoe izd-vo, 1957. 384 p. (MLRA 10:3)
(Radio--Receivers and reception)

KUBARKIN, L.V.; LEVITIN, Ye.A.

Radio engineering made interesting. IUn.tekh.no.1:13 Ja '57.
(MLRA 10:3)

(Radio--Problems, excercises, etc)

LAVITIN, Ye., KUBAREIN, I.

Seven qualities for radio receivers. Radio no.5:3-9-supp. My '57.
(Radio--Receivers and reception) (MLRA 10:6)

Levitin, Ye. A.

BROYDE, Abram Markovich; LEVITIN, Ye.A., red.; BORINOV, N.I., tekhn. red.

[Electron tubes and semiconductor devices] Elektronnye lampy i poluprovodnikovye pribory. Moskva, Gos. energ. izd-vo, 1958. 77 p. (Massovaia radiobiblioteka, no.301) (MIRA 11:7)
(Electron tubes) (Semiconductors)

LEVITIN, Yefim Alekseyevich; KUBARKIN, L.V., red.; BUKLYAND, V.A., red.; LARIONOV, G.Ye., tekhn.red.

[Electron tubes] Elektronnye lampy. Pod red. L.V.Kubarkina. Izd.2., perer. i dop. Moskva, Gos.energ.izd-vo, 1960. 134 p. (Massovaia radiobiblioteka, no.368). (MIRA 13:6)
(Electron tubes)

LEVITIN, Yefim Alekseyevich; GANZBURG, M.D., red.; LARIONOV, G.Ye., tekhn.red.

[Handbook on radiobroadcast receivers] Spravochnik po radioveshchatel'nym priemnikam. Moskva, Gos.energ.izd-vo, 1960. 288 p. (MIRA 13:7)
(Radio--Receivers and reception) (Radio circuits)

Levitin, Yefim Alekseyevich
Sprevochnik Po Radioveshchatel'nym Priyemnikam. 2.
Stereo. Izd. Moskva, Gosenergoizdat, 1961.
288 p. Illus., Diagrs., Tables. 27 cm.

BURLYAND, V.A.; YENYUTIN, Ye.A.; ZHEREBTSOV, I.P.; LEVITIN, Ye.A.; LOMANOVICH, V.A.; NEFEDOV, A.M.; SOBOLEVSKIY, A.G.; SONIN, Yo.K.; GRIGOR'YEVA, A.I., red.; KARYAKINA, M.S., tekhn. red.

[A book for rural radio amateurs] Kniga sel'skogo radioliubitelia. Pod obshchei red. V.A.Berlianda. Moskva, Izd-vo DOSAAF, 1961. 511 p. (MIRA 15:3)

(Radio)

KUBARKIN, Leontiy Vladimirovich; LEVITIN, Yefim Alekseyevich; KRIVITSKIY, B.Kh., red.; LARIONOV, G.Ye., tekhn. red.

[Recreational radio engineering] Zanimatel'naia radiotekhnika. Izd.2., perer. i dop. Moskva, Gosenergoizdat, 1962. 263 p. (Massovaia radiobiblioteka, no.454) (MIRA 15:10)
(Radio)

GYANDZHUNTSEV, Ye.T., kand. ekon. nauk, dots.; NELIDOV, I.Ye., kand. tekhn. nauk, dots., retsenzent; LEVITIN, Ye.A., st. prepod., retsenzent; BARANOV, A.I., kand. tekhn. nauk, red.;

[Specialization and cooperation in the radio industry] Spetsializatsiia i kooperirovanie v radiopromyshlennosti. Moskva, Mosk. energ.in-t, 1963. 22 p. (MIRA 16:10)
(Radio industry)

BARKAN, Vitaliy Fedorovich; ZHDANOV, Vasiliy Konstantinovich; CHISTYAKOV, N.I., doktor tekhn. nauk, retsenzent; LEVITIN, Ye.A., inzh., retsenzent; SAMOYLOV, G.V., inzh., red.; STARIKOV, Ye.P., inzh., red.; SUVOROVA, I.A., red.izd-va; NOVIK, A.Ya., tekhn. red.

[Design of radio systems] Proektirovanie radiotekhnicheskikh ustroistv. Moskva, Oborongiz, 1963. 514 p. (MIRA 17:1)

FRUMKIN, Georgiy Davydovich; LEVITIN, Ye.A., retsenzent; FROLOV, A.D., retsenzent; GOROKHOVA, S.S., tekhn. red.

[Design and construction of radio apparatus] Raschet i konstruirovanie radioapparatury. Moskva, Izd-vo "Vysshaia shkola," 1963. 318 p. (MIRA 17:2)

LEVITIN, Yefim Alekseyevich; LEVITIN, Leonid Yefimovich; KUBARKINA, L.V., red.; BURLYAND, V.A., red.; BUL'DYAYEV, N.A., tekhn. red.

[Electron tubes] Elektronnye lampy. Izd.3., perer. i dop. Pod red. L.V.Kubarkina. Moskva, Izd-vo "Energiia," 1964. 127 p. (Massovaia radiobiblioteka, no.507) (MIRA 17:3)

KUBARKIN, Leontiy Vladimirovich; LEVITIN, Yefim Alekseyevich; BURLYAND, V.A., red.

[Recreational radio engineering] Zanimatel'naia radiotekhnika. Izd.3., perer. i dop. Moskva, Energiia, 1964. 279 p. (Massovaia radiobiblioteka no.549) (MIRA 17:12)

YEVSEYENKO, L.S.; DISVETOVA, V.V.; KORMAN, D.B.; LEVITIN, Ye.I.; LEYENSON, B.P.; ORLOVA, R.S.; SHIYATAYA, O.K.

Results of the clinical use of 5-fluorouracil. Vop.onk. 11 no.11:69-75 '65.

(MIRA 19:1)

1. Iz khimioterapevticheskogo otdeleniya Moskovskoy gorodskoy klinicheskoy bol'nitsy No.1 imeni N.I.Pirogova (glavnyy vrach zasluzhennyy vrach RSFSR L.D.Chernyshev).

LEVITIN, Yu. I; TARLAVSKIY, D.N.

Automatic cultivator for sugar beet fields. Mekh. i elek. sots. sel'khoz. 19 no.1:58-59 '61. (MIRA 14:3)
(Sugar beets)
(Cultivators)

S/153/61/004/005/005/005
E134/E485

AUTHORS: Blokh, G.A., Melamed, Ch.L., Ol'shanskiy, L.P. and Levitin, Zh.N.

TITLE: Heat- and moisture-resistant resins for electrical insulation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya. v.4, no.5, 1961, 847-853

TEXT: The paper deals with the problem of insulating materials which have the required electrical and mechanical properties as well as high heat- and moisture-resistance. The present investigation is specifically concerned with insulating resins subjected to simultaneous heating and cooling on opposite sides (140°C and 20°C). The ageing tests were carried out on rubber tubing, the outside of which was maintained at 140°C whilst water was passed through the inside, the tubing was subsequently cut into sample pieces for physical tests. The usual ageing method of heating samples in a humidity cabinet by means of warm air proved unsuitable, because under normal conditions the heat transfer between air and rubber is less than that between water and rubber. Electric resistance heating of the tube surface, thermostatically

Card 1/7

Heat and moisture-resistant ...

controlled by a thermocouple, was therefore employed for each individual sample. A sketch of the apparatus with some constructional details is given (see figure). The resins based on the following rubbers were investigated: styrene-butadiene СКС-30 (SKS-30), silicone СКС-30АБС (SKS-30ABS), СКС-30АМБС (SKS-30AMBS) obtained by the method developed by A.P.Pisarenko and his associates (Ref.1: Kauchuk i rezina, no.2, 6, (1957)), carboxylated styrene-butadiene SKS-30 obtained by the method developed by B.A.Dolgoplosk and his associates (Ref.2: Kauchuk i rezina, no.6, 1 (1957)), butadiene-methyl vinyl pyridine and butyl rubbers. They were also investigated in combination with each other and with natural rubber, and with chalk tale, pyrophyllite and powdered silica gel as fillers. The composition of the tested resins is given in detail. The results of the tests are given in Table 2. The best insulating properties were obtained from styrene-butadiene resins. Compounds based on methyl vinyl pyridine and butyl rubber showed insufficient heat- and moisture-resistance as well as unsatisfactory electrical properties. There are 1 figure, 3 tables and 3 references: 2 Soviet-bloc and 1 Russian translation from non-Soviet-bloc

Card 2/3

S/153/61/004/005/005/005
E134/E485

Heat and moisture-resistant ...

publication.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskiy institut im. F.E.Dzerzhinskogo i Berdyanskiy zavod „Azovkabel'" Kafedra tekhnologii reziny (Department of Rubber Technology, Dnepropetrovsk Institute of Chemical Technology im. F.E.Dzerzhinskiy and Berdyansk "Azovkabel'" Plant)

SUBMITTED: May 21, 1960

Card 3/3

LEVITIN, Zh.N.; CHERNENKO, V.I.; LOSHKAREV, M.A.

Calculation of polarization when superposing direct and alternating currents. Trudy DKHTI no.16:115-120 '63. (MIRA 17:2)

CHERNENKO, V.I.; KOSTENKO, B.N.; LEVITIN, Zh.N.; PETRENKO, A.I.

Study of the process of copper refining. Zhur. prikl. khim. 36 no.11:2491-2498 N '63. (MIRA 17:1)

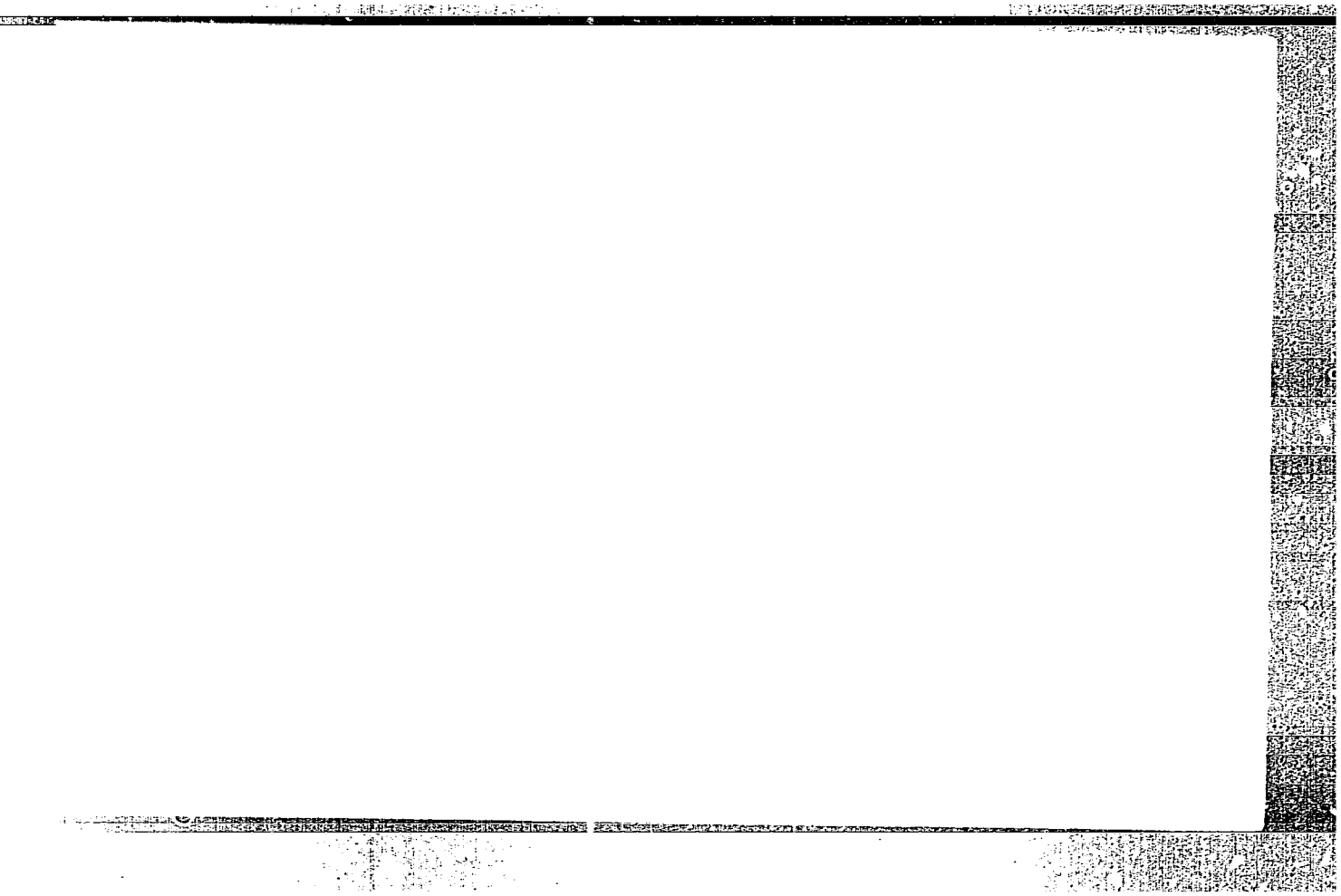
CHERNENKO, V.I.; LOSHKAREV, M.A.; LEVITIN, Zh.N.

Electrode polarization by superimposed a.c. current. Zhur. fiz. khim. 37 no.5:1015-1022 My '63. (MIRA 17:1)

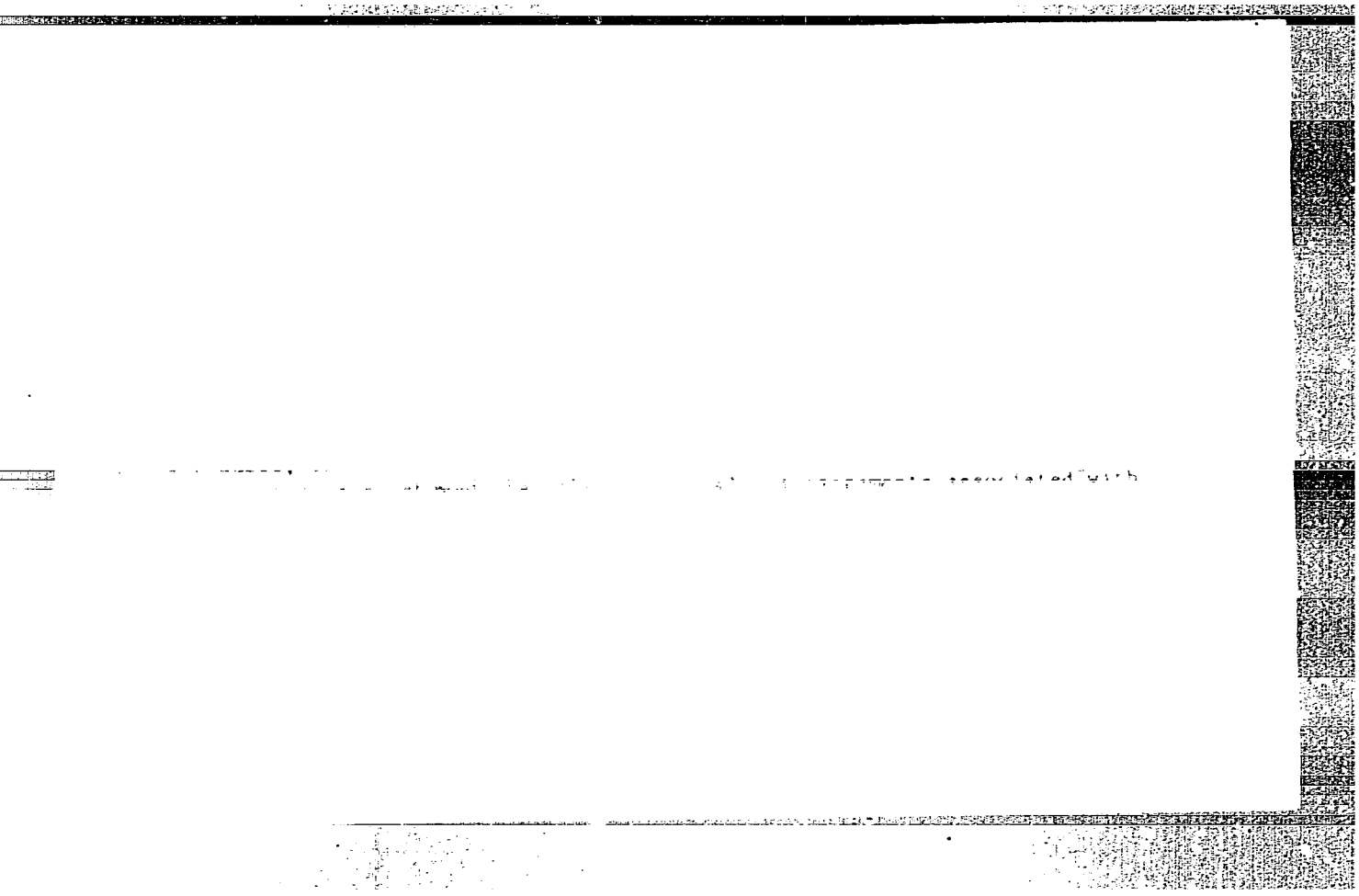
1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut imeni Dzerzhinskogo.

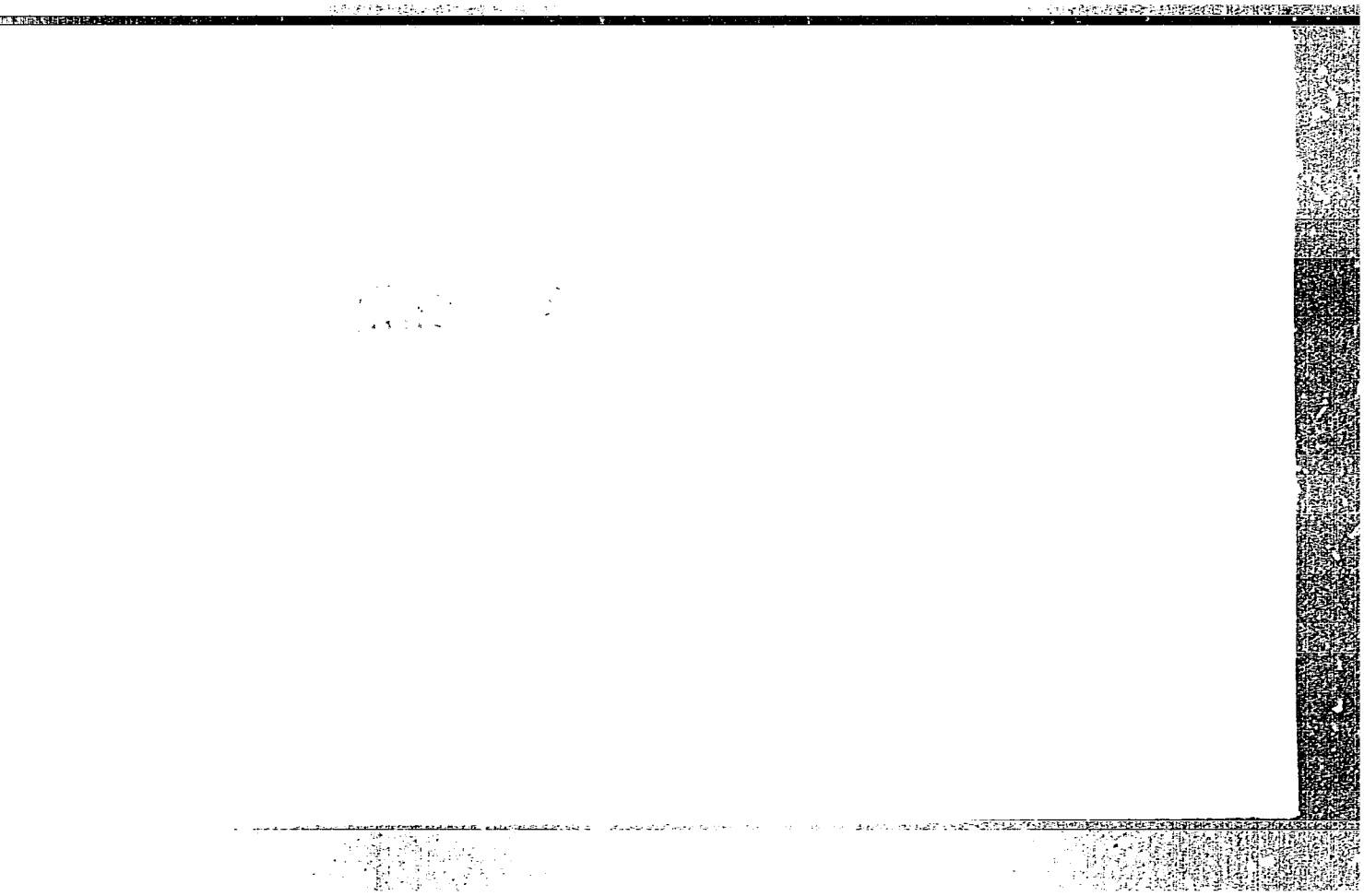
LOSHKAREV, M.A.; LEVITIN, Zh.N.; [illegible], V.I.

Experimental check of the graphic method for calculating polarization when superimposing the direct and alternating currents. Trudy DKHTI no.16:87-98 '62 (MIRA 17:8)



APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620016-6"





APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620016-6"

LEVITINA, E. I.

USSR/Chemistry - Protective coatings

Card 1/1 Pub. 151 - 5/38

Authors : Levitina, E. I.

Title : Behavior of magnesium in alkaline solutions

Periodical : Zhur. ob. khim. 24/2, 216-218, Feb 1954

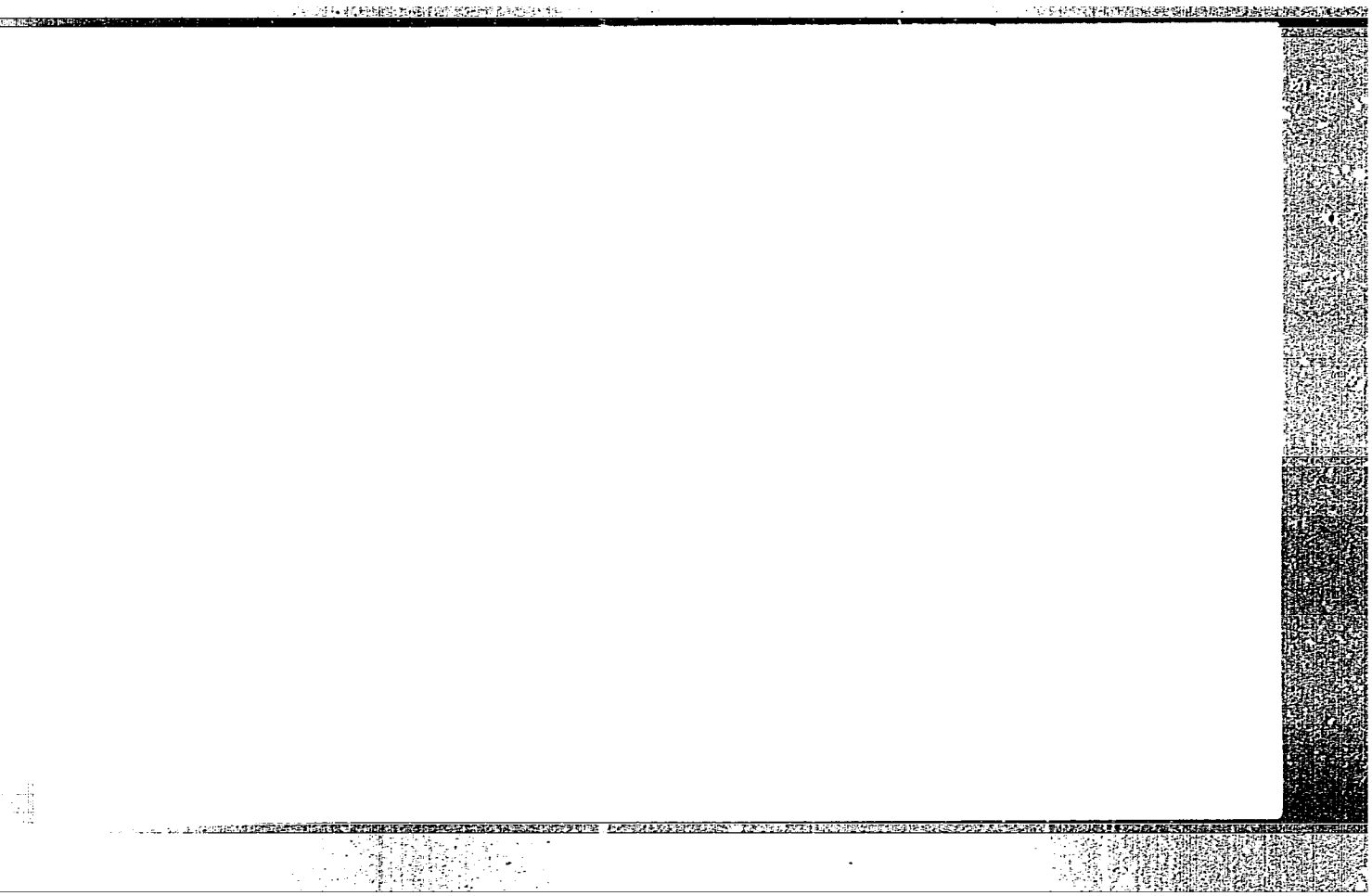
Abstract : The conditions leading to the formation of protective $Mg(OH)_2$ layers on magnesium in alkaline solutions at increased temperatures were investigated. The growth of the protective $Mg(OH)_2$ layer, which has a simple hexagonal lattice, is explained. The rate of growth of the layer is boosted by the increase in temperature of the solution and increases to a lesser degree during the increase in alkaline concentration. It was established that highly protective and compact layers with a thickness of about 2 μ can be obtained by treating the Mg with solutions containing 700-800 g/l of NaOH at a boiling point of 130-135°. Three USSR references (1902-1930. Graphs.

Institution : ...

Submitted : June 23, 1953

SAMARTSEV, A.G.; LEVITINA, E.I.

Behavior of magnesium in solutions of potassium dichromate. Zhur. ob.khim. 24 no.10:1697-1700 O '54. (MLRA 7:12)
(Magnesium) (Potassium dichromate)



APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620016-6"

LEVITINA, E.I.

The nature of oxide films forming iron in alkaline solutions of oxidizing agents. Zhur. prikl. khim. 31 no.1:40-45 Ja '58. (MIRA 11:4)

(Iron) (Oxides) (Metallic films)

AUTHORS: Samartsev, A. G., Levitina, E. I. 76-32-5-9/47

TITLE: The Cathodic Deposition of Molybdenum Sesquioxide (Katodnoye vydeleniye polutornoy okisi molibdena)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 5, pp. 1023 - 1029 (USSR)

ABSTRACT: In the present work some characteristic features of the growth process of the cathode deposition of molybdenum sesquioxide, as well as the influence of the composition of the cathode surface, the acidity of the electrolyte and of other factors were investigated. The experiments were carried out with cathodes of various metals with on the one hand the weight of the formed precipitation and on the other hand the amount of formed hydrogen having been measured. Before the experiments the cathodes were either ground, immersed into 10% sulfuric acid at 65°C for 5 minutes (activated), or they were afterwards left in a 10% potassium bichromate solution at the boiling point for 30 minutes (passivated). The results of the experiments show that the weight increases more quickly in activated cathodes than in ground ones, while in the case of the passivated cathode a complete stoppage of the reduction process of

Card 1/3

hexavalent molybdenum ions takes place. The results of the investigations of the velocity of hydrogen formation show that the activated surfaces effect the least formation of hydrogen, while it is complete in the case of passivated surfaces and no molybdenum reduction takes place; also with the activated cathodes a gradual decrease of the formation of the molybdenum sesquioxide deposition was observed. The measurement of the change of cathode polarization also showed a different course of the potential of activated and passivated electrodes, from which fact can be concluded a different composition of the surfaces. Depositions with a greatest layer thickness were obtained with zinc cathodes and activated steel electrodes, with the same conditions of electrolysis prevailing. An essential influence on the formation of the deposition is exerted by the acidity of the solution, where with a decrease of the acidity an impedance and a subsequent standstill of the molybdenum reduction takes place. The increase of the current density effects an impedance of the formation of molybdenum sesquioxide which can be avoided by a rise of temperature, an increase of the concentration of the ammonium molybdate, or by the addition

of neutral conductive salts. It was found that the depositions show a different water content corresponding to the conditions of electrolysis, and that they have, besides, a special structure as interpreted from the mentioned microphotographs, which has fine cracks, which fact is explained by the separation of water. There are 7 figures and 7 references, 1 of which is Soviet.

SUBMITTED: November 9, 1956

1. Molybdenum oxide--Electrodeposition 2. Cathodes--Surface properties 3. Electrolytes--Properties

S/076/60/034/009/033/041XX
B020/B056

AUTHOR: Levitina, E. I., Leningrad

TITLE: Investigation of the Process of Passivating Zinc in Chromic Baths

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 2075-2081

TEXT: The present paper deals with the effect of the concentration of SO_4 ions, of the acidity of the solution, of the Cr^{3+}-ions, of the temperature of the solution as well as of some other factors independent of one another upon the passivation of zinc in chromic baths. In the experiments, steel plates 1.5 mm thick were used as specimens. The surface of the specimens in all experiments was equal to 30 cm^2. The specimens were zinced in a cyanide bath, the thickness of the zinc layer amounting to 5 μ. In the experiments, the weight of the film and the total quantity of the oxidized metal were determined. Table 1 gives the data on the effect produced by the SO_4 ion concentration

upon the weight of the passivating film and the quantity of the oxidized metal. All solutions had the same acidity (pH = 1.2), which was attained by the introduction of chromium oxide. The specimens were kept for 5 minutes in the passivating solutions. The acidity of the solution was not influenced by the addition of Na_2SO_4. Table 2 gives the experimental data characterizing the effect used by the acidity of the solution upon the growth of the film at constant SO_4 ion concentration. Fig. 1 shows the dependence of the weight of the film formed and of the quantity of the oxidized metal for $Na_2Cr_2O_7$-solutions with different H_2SO_4-content. The specimens were kept in the solution for 30 seconds. Table 3 gives the data characterizing the effect produced by trivalent chromium compounds upon the weight of the film formed and the weight of the oxidized metal, it being found that the effect being produced by Cr^{3+} occurs only in the presence of SO_4 ions in the solution. Fig. 2 shows the results obtained by determining the acidity of solutions containing 200 g sodium bichromate per liter and various quantities of chrome alums. Acidity was determined by means of a glass electrode under

Investigation of the Process of Passivating Zinc in Chromic Baths

S/076/60/034/009/033/041XX
B020/B056

continuous stirring of the solution. By the introduction of 50 g chrome alums per liter, the pH drops from 3.8 to 2.2. The pH of freshly prepared chrome alum solutions is considerably higher than 2.2. Fig. 3 shows the titration curve of $Na_2Cr_2O_7$ - Na_2SO_4 and of $Na_2Cr_2O_7$ - chrome alum solutions with 1 N NaOH. Figures 4 and 5 show curves characterizing the weight of the film and the quantity of the oxidized metal as functions of the temperature of the solution. The experiments show that the thickness of the film formed and the quantity of the metal oxidized drops considerably with rising temperature. Analogous rules are also found with pH = 1.2 in solutions containing or not containing trivalent chromium. There are 5 figures, 3 tables, and 8 references: 4 Soviet, 3 US, and 1 German.

SUBMITTED: January 5, 1959

Card 3/3

87011

6.3000 (1024,1035,1141)
6.4780

S/051/61/010/001/016/017
E201/E491

AUTHOR: Levitina, E.I.

TITLE: Metal Mirrors With High Reflection Coefficients

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.135-138

TEXT: The reflection coefficients of chromium, nickel, palladium, rhodium and aluminium mirrors were raised considerably by coating them with $Si-TiO_2$ layers deposited by hydrolysis of ethyl esters of orthosilicic and orthotitanic acids. After coating, the mirrors were heated at 120 to 220°C for 2 to 3 hours. The reflectivity of the coated mirrors was governed by two factors: the concentration of the esters and the rate of rotation of the mirrors during the coating process. The rate of rotation was kept constant and the dependences of the reflectivity on the ester concentration showed minima (Fig.1). A table on p.136 lists the reflectivities for white light of non-coated and coated mirrors. The wavelength dependences of the reflectivities of the non-coated (curves denoted by 1) and coated (curves denoted by 2) mirrors are given in Fig.2. The coating treatments not only increased the reflectivity of the mirrors but also made them

Card 1/2

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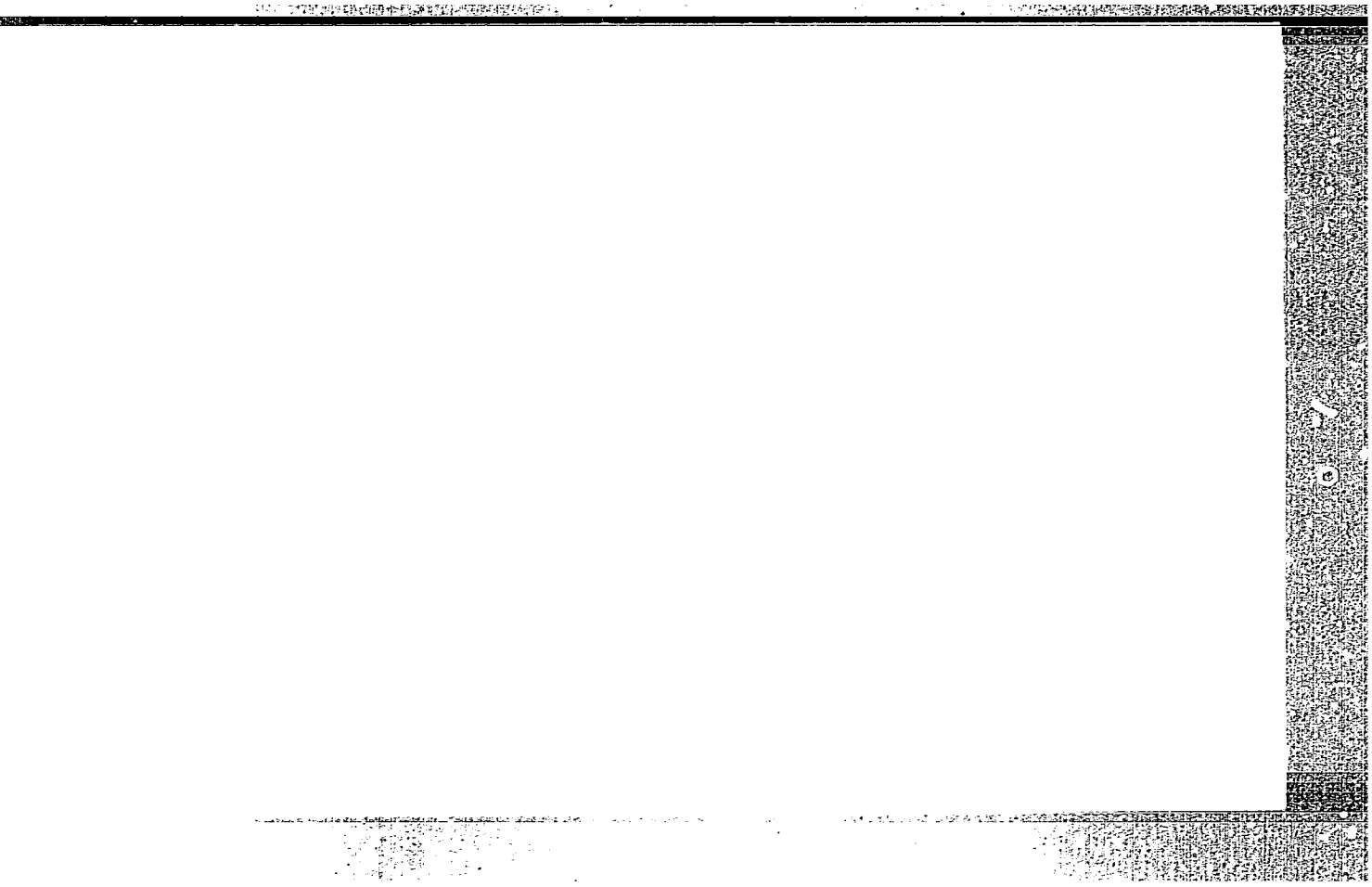
E 201/E491

Metal Mirrors With High Reflection Coefficients

mechanically stronger and chemically more inert. Acknowledgments are made to A.I.Kvyat for supply of rhodium mirrors and to T.S.Tatarinova for help in this work. There are 2 figures, 1 table and 11 references: 7 Soviet and 4 non-Soviet.

SUBMITTED: May 3, 1960

Card 2/2



APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929620016-6"

S/138/61/000/003/002/006
A051/A129

AUTHORS: Buyko, G. P.; Sakhnovskiy, N. L.; Yevstratov, V. F.; Smirnova, L. A.; Levitina, G. A., and Matkov, V. I.

TITLE: Certain features of carboxyl-containing butadiene-styrene SKS-30-1 rubber and its evaluation in tread rubbers

Periodical: Kauchuk i rezina, no. 3, 1961, 9-15

TEXT: The results of an investigation are given, which was conducted to develop a formulation and conditions for manufacturing wear-resistant tread rubber based on carboxyl containing butadiene-styrene CKC-30-1 (SKS-30-1) rubber. The results of an evaluation of the properties of rubbers and tires using treads based on the above-mentioned rubber are given. In developing the formulation of the tire tread rubber based on SKS-30-1 the best fillers were found to be the active furnace ХАФ (khAF)-type carbon blacks. The extract of phenol purification (F-6, P-6), 10 w.p., was the best softener used in the amount of 45 w.p. of the khAF carbon black (Vulkan 3) and ensuring a plasticity of the mixture according to Carriere of about 0.50. Magnesium oxide was chosen as the main vulcanizing agent based on work of

Card 1/5

the VNIISK (Dolgoplosk, B. A., et al. -Ref. 1: Kauchuk i rezina, no. 3, 11, 1957; Ref. 2: Kauchuk i rezina, no. 6, 1, 1957). The vulcanizing group contained also thiuram and zinc oxide. The following vulcanizing group was selected (in w.p.): MgO - 2.0, ZnO - 1.0, sulfur -0.8, thiuram -1.0. The tire tread mixtures based on SKS-30-1 were prepared according to a double-stage process. It was noted that scorching depends to a great extent on the meteorological conditions during the period of the mixture preparation. It is assumed that the main reason for the scorching tendency of the SKS-30-1 mixtures in the fall and spring is apparently due to an elevated moisture content in the ingredients. It was shown that water has a significant effect on the scorching of the SKS-30-1 mixtures. The effect of the water increases with the content of metal oxides in the mixtures. The highly significant effect of small quantities of water on the scorching of SKS-30-1 mixtures containing metal oxides is explained by the fact that when water is added to the various micro-sections of the mixtures a polar medium is formed facilitating the interaction between the polymer acid and the metal oxides at comparatively low temperatures. A simple method for the removal of water is given, viz., the mechanical treatment of the mixtures at elevated temperatures over long periods of time. Experiments showed that when storing the

Main features of...

Mixtures for a period of ten days no noticeable increase in the moisture content or a tendency to scorching is observed (Fig. 4). The properties of the SKS-30-1 based rubber are compared to that of SKS-30ARKM and NR. The outstanding feature of the SKS-30-1 based rubber is said to be the combination of a high static modulus with a high relative elongation. It has superior resistance to thermal aging and its main advantage over the other two types is its extremely high resistance to crack growth in repeated bending. One of its disadvantages is its comparatively low temperature-resistance manifesting itself in a significant drop of the tensile strength at high temperatures. However, the latter property improves noticeably during the aging process contrary to SKS-30ARKM and NR based rubbers. The tensility properties of the SKS-30-1-based rubber during the rolling process improve as opposed to the other types. The difference between SKS-30-1 rubber on one hand and NR and SKS-30ARKM rubbers on the other is noted in the dependence of the heat-resistance coefficient in tear-resistance on the roadability of the tires in stationary tests (Fig. 6). As to its hysteresis properties the SKS-30-1 rubber resembles the rubbers based on butadiene-styrene and is much inferior to NR. Data on experimental procedures showed that non-filled SKS-30-1 rubber contrary to SKS-30ARKM and NR rubber has a high wear-resistance

Card 3/5

Certain features of ...

under certain conditions. Tests of the tire tread rubber based on three types were performed on the ИМИ-3 (IMI-3) instrument and showed no significant differences in their wear-resistance. The dependence of the wear-resistance (in SKS-30-1 rubber) on the medium where the test is conducted is expressed to a lesser degree. This indicates a lesser intensity of the oxidation processes taking place in it during wear of the SKS-30-1 rubber as compared to the other varities. The wear of SKS-30-1 rubber on a metallic grooved surface is much less. The results of service tests for both cars and trucks showed that tread rubber based on SKS-30-1 material exceeds the other materials in its wear-resistance, e. g., that of SKS-30ARKM and SKS-30AM. Tire treads based on SKS-30-1 rubber were tested on the road and under stationary conditions. The first batch of the truck and automobile tires were damaged completely owing to a breakdown of the protector joint after a 5 - 15 thousand km run. It is recommended removing the upper scorched layer of the joint when producing SKS-30-1 treads. The relationship of the joint stability in SKS-30-1 treads to the type of adhesive layer shows: 1) that adhesives based on NR sharply decrease the stability of the joint, 2) the adhesives based on BSK ensure a higher stability of the joints, 3) the greatest joint stability is obtained when using stable adhesives based on SKS-30-1.

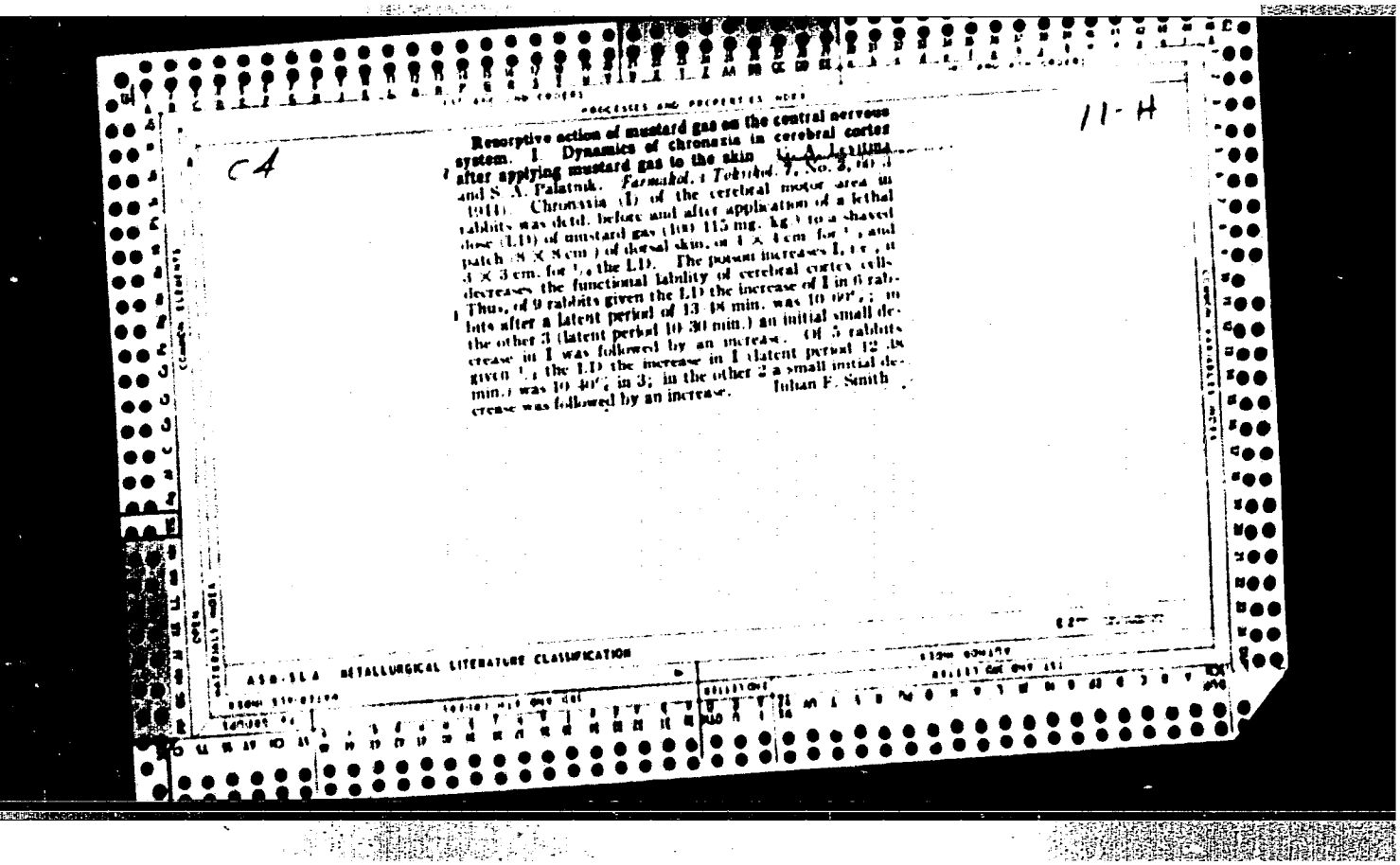
Card 4/5

Certain features of...

One of the disadvantages of SKS-30-1 tires is said to be the lowered stability of the adhesion between the tread and the breaker based on NR. One of the outstanding features of the SKS-30-1 tire treads as compared to other types, such as butadiene-styrene rubber is the absence of tire damage due to a defect by cracking along the grooves of the tread. The authors conclude that the carboxyl-containing rubbers are promising for use in tread rubber for the automobile industry. There are 6 tables, 6 graphs, 1 photograph and 4 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

Card 5/5

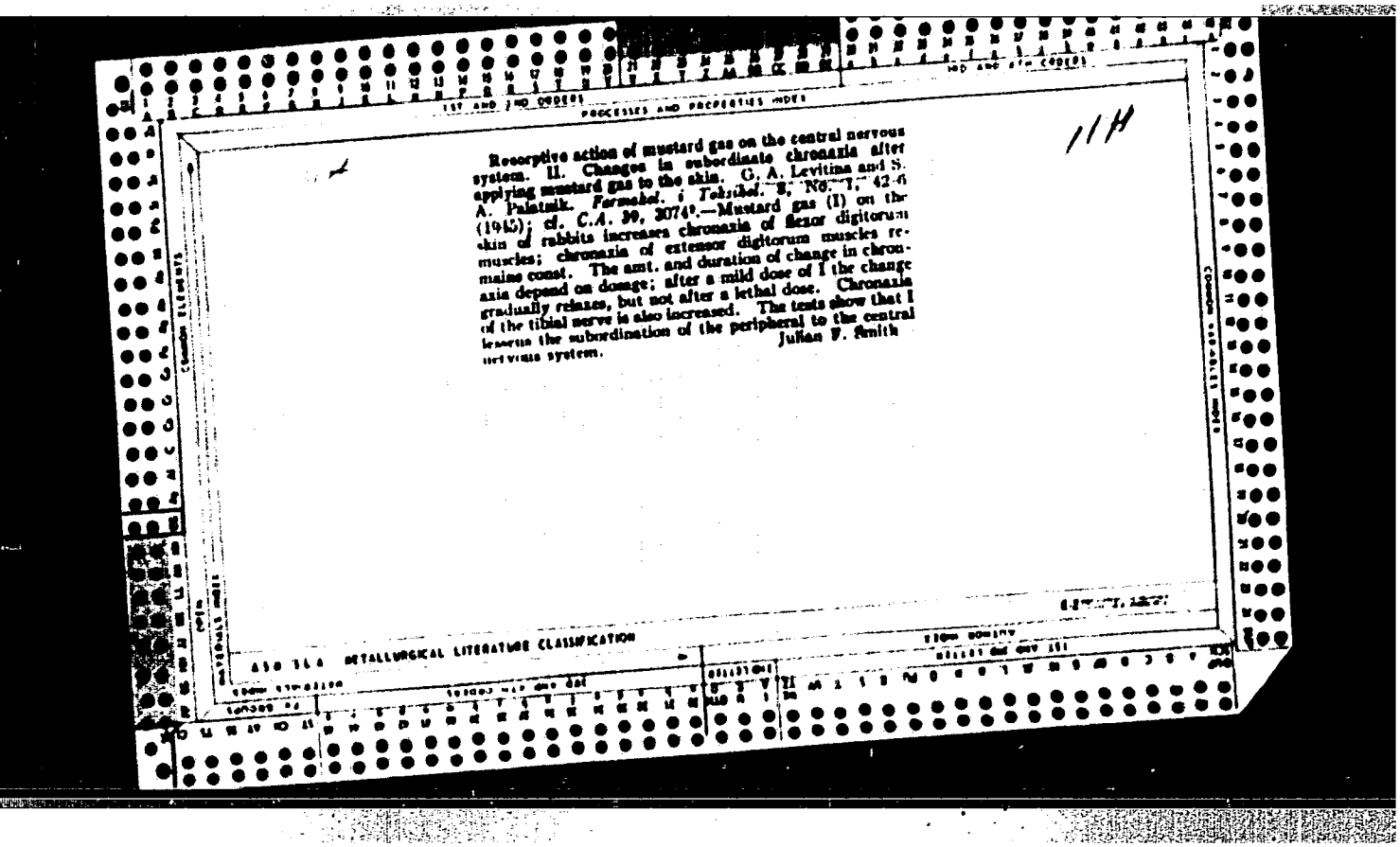


C4

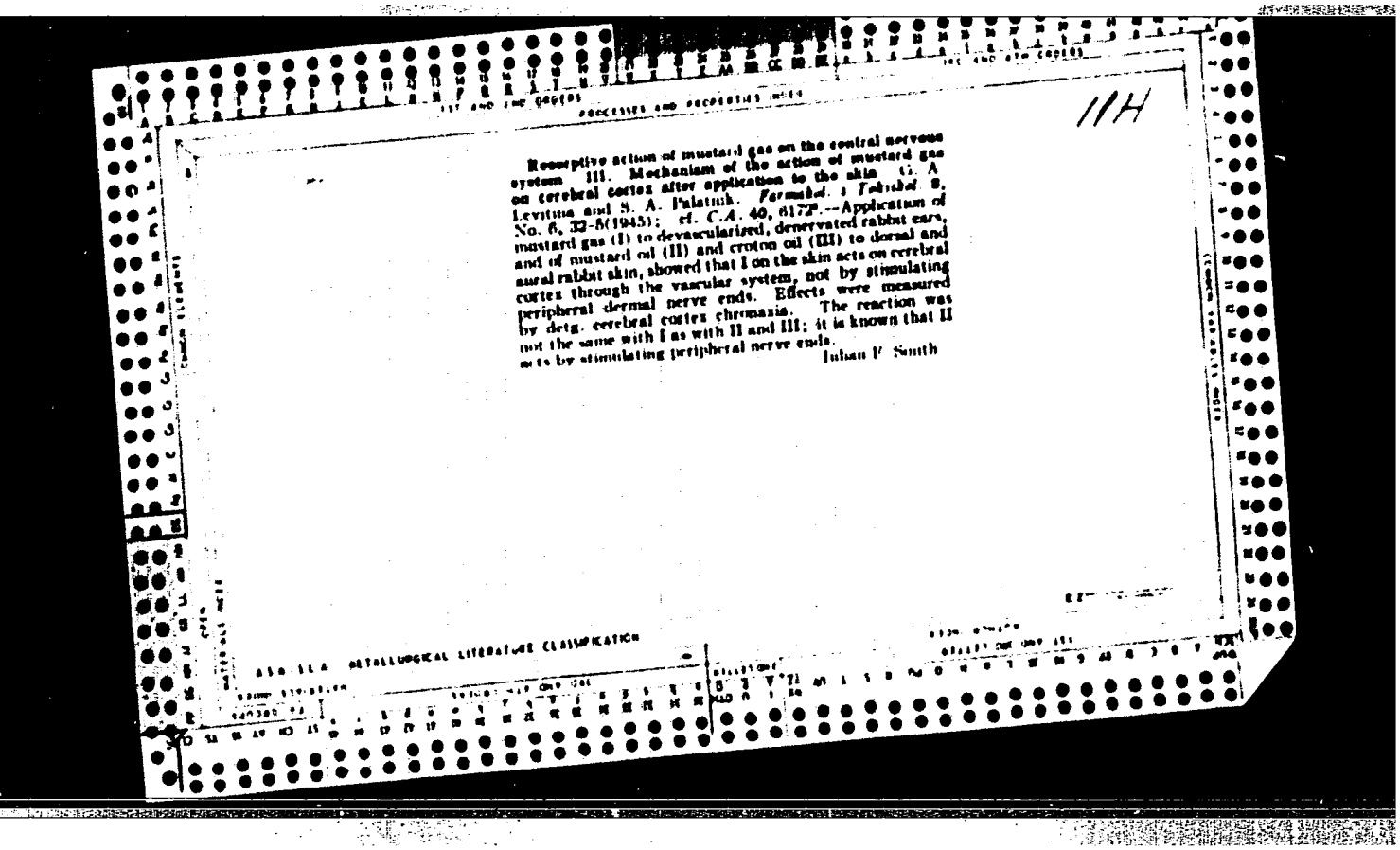
11-H

Resorptive action of mustard gas on the central nervous system. I. Dynamics of chronaxia in cerebral cortex after applying mustard gas to the skin. L. A. Latkina and S. A. Palatnik. *Farmakol. i Toksikol.* 7, No. 3, 40-3 (1944). Chronaxia (I) of the cerebral motor area in rabbits was detd. before and after application of a lethal dose (LD) of mustard gas (lit. 115 mg./kg.) to a shaved patch (8 × 8 cm.) of thoracal skin, or 1 × 1 cm. for ¼ and 3 × 3 cm. for ¼ the LD. The poison increases I, i.e., it decreases the functional lability of cerebral cortex cells. Thus, of 9 rabbits given the LD the increase of I in 6 rabbits after a latent period of 13–18 min. was 10–90%; in the other 3 (latent period 10–30 min.) an initial small decrease in I was followed by an increase. Of 5 rabbits given ¼ the LD the increase in I (latent period 12–18 min.) was 10–40%; in 3; in the other 2 a small initial decrease was followed by an increase. Julian F. Smith

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Resorptive action of mustard gas on the central nervous system. II. Changes in subordinate chronaxia after applying mustard gas to the skin. G. A. Levitina and S. A. Palatnik. *Fermakol. i Toksikol.* 8, No. 1, 42-6 (1945); cf. *C.A.* 39, 3074⁹.—Mustard gas (I) on the skin of rabbits increases chronaxia of flexor digitorum muscles; chronaxia of extensor digitorum muscles remains const. The amt. and duration of change in chronaxia depend on dosage; after a mild dose of I the change gradually relaxes, but not after a lethal dose. Chronaxia of the tibial nerve is also increased. The tests show that I lessens the subordination of the peripheral to the central nervous system.
Julian F. Smith



Resorptive action of mustard gas on the central nervous system. III. Mechanism of the action of mustard gas on cerebral cortex after application to the skin. G. A. Levitina and S. A. Palatnik. *Farmakol. i Toksikol.* 8, No. 6, 32-6(1945); cf. *C.A.* 40, 6177F.—Application of mustard gas (I) to devascularized, denervated rabbit ears, and of mustard oil (II) and croton oil (III) to dorsal and aural rabbit skin, showed that I on the skin acts on cerebral cortex through the vascular system, not by stimulating peripheral dermal nerve ends. Effects were measured by detg. cerebral cortex chromaxia. The reaction was not the same with I as with II and III; it is known that II acts by stimulating peripheral nerve ends.

Julian F. Smith

LEVITINA, G. A.

Levitina, G. A. and Magnitskiy, A. N. "Examining subordination in an electro - diagnostic process", in the collection: Subordinatsiya v nervnoy sisteme i yeye znacheniye v fiziologii i patologii, Moscow, 1948, p.86-96, - Bibliog: 5 items.

SO: U - 3042, 11 March 53, (Letopis "Zhurnal "nykh Statey, No. 7, 1949)

LEVITINA, G. A.

Lazarev, V. G., Levitina, G. A., and Martinskiy, A. N. "Changes in subordination in traumas of the peripheral nervous system", in the collection: Subordinatsiya v nervnoy sisteme i yeye znacheniye v fiziologii i patologii, Moscow, 1948, p. 180-[illegible].

SO: U - 3042, 11 March 53, (Letopis "Zhurnal "nykh Statey, No. 7, 1949)

LEVITINA, G. A.

Levitina, G. A. "The status of subordination and chronaxy of the cerebral cortex in hallucapnine catalepsy", in the collection: Subordinatsiya v nervnoy sisteme i yeye znacheniye v fiziologii i patologii, Moscow, 1948, p. 189-208, - Bibliog: 16 items.

SO: U - 3042, 11 March 53, (Letopis "Zhurnal "nykh Statey, No. 7, 1949)

LEVITINA, G.A.

FA 13/49T55

USSR/Medicine - Spinal Chord May/Jun 48
Medicine - Nervous System,
Physiology

"Effect of Sechenov's Inhibition on the Normal Rhythm in the Spinal Cord," G. A. Levitina, A. N. Magnitskiy, Electrophysiol Lab, All-Union Inst of Experimental Med imeni Gor'kiy, 6 pp

"Fiziol Zhur SSSR" Vol XXXIV, No 3

Reports experiments on frogs. Concludes that Sechenov's inhibition does not affect normal rhythm in the spinal cord. Hence, despite its parabiotic nature, it does not affect the functional ability of the spinal cord.

13/49T55

LEVITINA G. A., PALATNIK S.A., LIMCHER L.F., PAPAMONOVA E.G.

Funktsional'noe sostoianie kory golovnogo mozga bol'nykh giper-tonicheskoi bolezn'iu i vliianie na nego lechebnogo pitaniia (Po dannym elektroentsefalografii). [Functional state of the cerebral cortex in hypertensives and effect of therapeutic diet; electroencephalographic data] Ter. arkh. 23:2 Mar-Apr 51 p. 26-40.

1. S. A. Palatnik of the Group for the Study of the Pathology of the Brain (Supervisor--Prof. M. O. Gurevich, Active Member of the Academy of Medical Sciences USSR) attached to the Psychiatric Clinic of First Moscow Order of Lenin Medical Institute. 2. L. F. Limcher and E. G. Paramonova of the Clinic of Therapeutic Nutrition (Director--Honored Worker in Science Prof. M. I. Pevzner), Institute of Nutrition of the Academy of Medical Sciences USSR. 3. Of the Electro-physiological Laboratory (Head--Prof. A. M. Magnitskiy, Active Member of the Academy of Medical Sciences USSR), Institute of Physiology of the Academy of Medical Sciences USSR.
CLML Vol. 20, No. 10 Oct 1951

LEVITINA, G.A.

Influence of neural centers on the transformation of the excitation rhythm in the neural-muscular apparatus. Fiziol.zh.SSSR 37 no.2:162-168 Mar-Apr 51. (CLML 21:1)

1. Electrophysiological Laboratory, Institute of Physiology of the Academy of Medical Sciences USSR.

LEVITINA, G.A.

Effect of excision of various parts of the brain on natural rhythm of the spinal cord. Fiziol. zh. SSSR 39 no.2:167-172 Mar-Apr 1953. (CIML 24:3)

1. Electrophysiological Laboratory of the Institute of Physiology of the Academy of Medical Sciences USSR.

BUYKO, G.N.; SAKHNOVSKIY, N.L.; YEVSTRATOV, V.F.; SMIRNOVA, L.A.; LEVITINA, G.A. KATKOV, V.I.

Some characteristics of the carboxyl-containing butadiene-styrene rubber SK-30-1 and its evaluation in tread rubbers. Kauch.i rez. no.3:9-13 Mr '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Tires, Rubber) (Butadiene)

LEVITINA, I. N.

USSR / Farm Animals. Domestic Fowl. Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40521.

Author : Podoba Ye. G., Levitina I. N.
Inst : Not given.
Title : The Effect of Heteroauxin on the Growth, Development and Production of Hens.

Orig Pub: Zap. Khar'kovsk. s.-kh. in-ta, 1957, 13 (50), 227-232.

Abstract: The supplementation of the rations of hens and chicks with heteroauxin in doses of 25-50 mg. per 1 kg. of feed increased the energy of the growth of chicks, on the average, by 20-27% and the productivity of hens (mainly through the rise of the weight of eggs), by 8.6-19.7%. According to the author's data, heteroauxin increases the vitality of fowls grown with its use as supplement, and ensures a high level of metabolism in the organism.

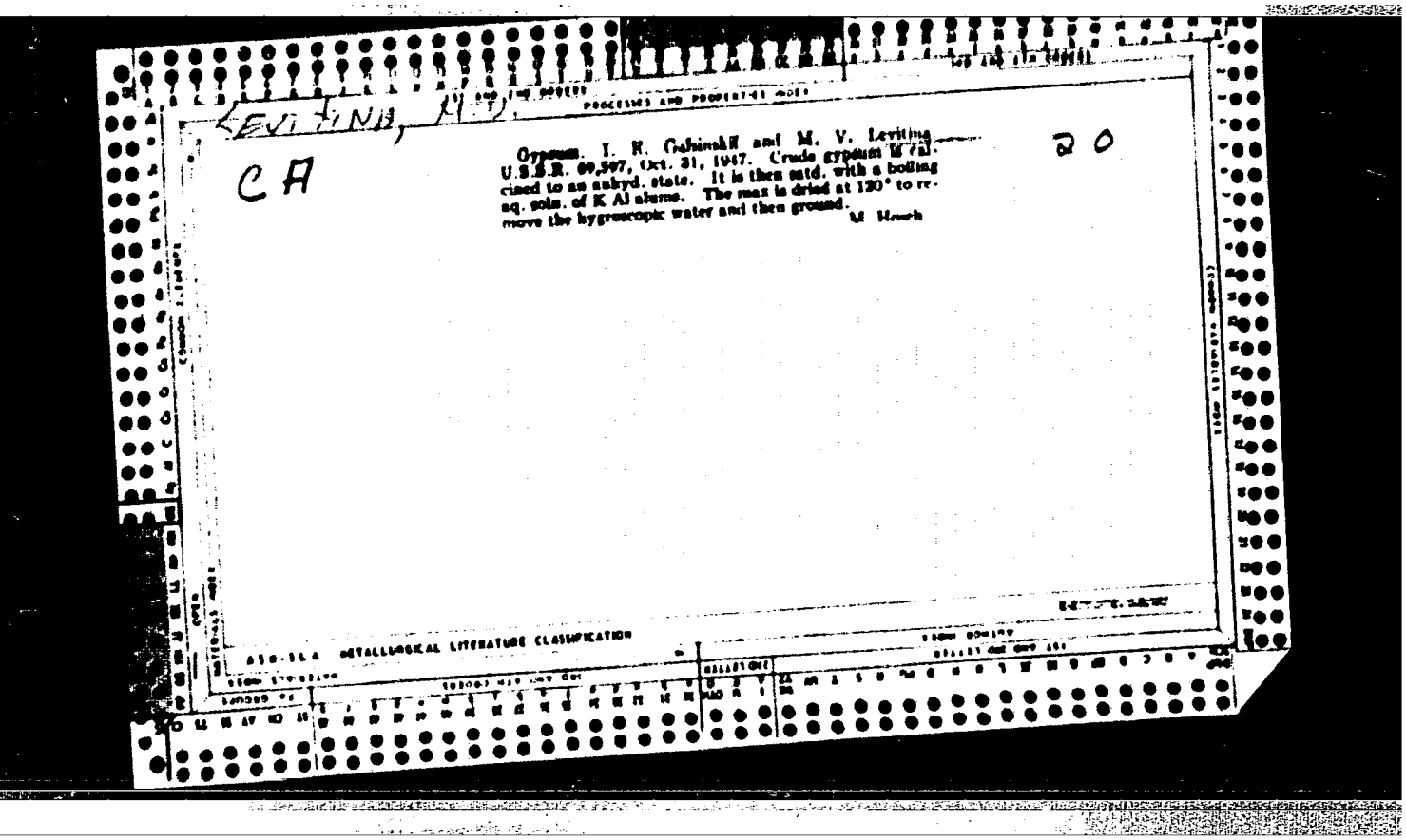
Card 1/1

FREYDKIN, Il'ya Davidovich; LEVITINA, K.I., red.; YAKOVLEVA, N.A., tekhn. red.

[Manual for qualitative chemical analysis in intrapharmaceutical control]Posobie po kachestvennomu khimicheskomu analizu pri vnutriaptechnom kontrole. Moskva, Medgiz, 1963. 206 p. (MIRA 16:3)
(DRUGS--ADULTERATION AND ANALYSIS,

ROSHCHIN, K.S.; TSVETKOV, A.I.; SIDNEV, N.F.; TSEGE, A.S.; LIKHACHEV, V.F.; SHIBANOV, K.I.; LEVITINA, Kh.K.; OSTROVKINA, M.Ya.; BAYBAKOV, P.M.; KROL', A.I.

Improvement in the operation of the rectifying devices of electroplating tanks. Prom. energ. 15 no.11:19-20 N '60. (MIRA 14:9)
(Electroplating) (Electric current rectifiers)



LEVITIN, M. V.

CA

Gypsum. I. R. Gabinskii and M. V. Levitin. U.S.S.R. 69,597, Oct. 31, 1947. Crude gypsum is calcined to an anhyd. state. It is then mixed with a boiling aq. soln. of K Al alums. The mass is dried at 120° to remove the hygroscopic water and then ground.

M. Hoch

20

METALLURGICAL LITERATURE CLASSIFICATION

LEVITINA, M.V.

Gaysinskiy, I. Ye., Rogovenko, S.V., and Levitina, M.V. "Sulfate cementing paints," Byulleten' stroit. tekhniki, 1948, No. 23, p. 26-27

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

Adaptation of the semidry pressing method for gypsum building components. B. B. Kryzhanovskii, M. V. Levitina, and N. V. Smirnov. *Sbornik Trudov Resp. Nauch.-Issled. inst. Mestnykh Stroitel. Materialov* 1954, No. 6, 189–208; *Referat. Zhur., Khim.* 1954, No. 48752.—The strength of a semidried gypsum product was appreciably greater than that of cast. The expansion of fresh gypsum during setting and hardening depends on its d.; higher d. results in greater expansion. The greatest impact strength had gypsum mixed with 10% slaked lime. Good results were obtained by mixing with the gypsum up to 25% boiler ash or up to 30% fuel slag of 0.15–5-mm. size.

M. Hosch

KRUSHINSKIY, L.V.; MOLODKINA, L.N.; LEVITINA, N.A.

Time and conditions for the restoration of an exhausted inhibition process during the activity of sound stimuli. Zhur.vys.nerv.deiat. 9 no.4:566-572 Jl-Ag '59. (MIRA 12:12)

1. Laboratoriya patofiziologii kafedry fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta.
(REFLEX CONDITIONED)

LEVITINA, N.A.

Studies on the higher nervous activity in rats "sensitive" and "insensitive" to the activity of sound stimuli. Zhur. vys. nerv. deiat 10 no. 4:613-619 Jl-Ag '60. (MIRA 14:2)

1. Chair of the Higher Nervous Activity, Moscow University.
(CONDITIONED RESPONSE) (SOUND)

LEVITINA, N.A.

Differences in the excitability of the neuromuscular apparatus in rabbits under normal conditions. Fiziol. zhur. 47 no.4:520-522 Ap '61. (MIRA 14:6)

1. From the Scientific Research Institute of Kurortology and Physico-Therapy, Moscow.
(NERVES) (MUSCLE)

LEVITINA, N.A.

Electrocardiographic registration with the aid of contact electrodes carried out on unfixed rabbits. Fiziol. zhur. 47 no.9:1210-1211 S '61. (MIRA 14:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut kurortologii i fizioterapii, Moskva.
(ELECTROCARDIOGRAPHY)

PRESMAN, A.S.; KAMENSKIY, Yu.I.; LEVITINA, N.A. (Moskva)

Biological effect of microwaves. Usp. sovr. biol. 51 no.1:84-103 Ja-F '61. (MIRA 14:3)
(MICROWAVES—PHYSIOLOGICAL EFFECT)

S/20?/62/002/001/009/010
D208/D302

27.2400

AUTHORS: Presman, A.S., Levitina, N.A.

TITLE: The effect of non-thermal microwave irradiation on animal resistance to gamma-irradiation

PERIODICAL: Radiobiologiya, v. 2, no. 1, 1962, 170 - 171

TEXT: Preliminary experiments were made with 3 groups of rats (weight 125 - 130 g) to determine the possibility of increasing resistance to ionizing radiation by the preliminary action of microwaves at small, non-thermal intensities. Three groups of rats were studied, irradiated: 1) With continuous microwaves (λ = 12 cm); 2) With pulse microwaves (λ = 10 cm, 700 imp/sec.), both at 10 - 15 milliwatt/cm^2, exposure being 30 min. daily for 25 days; 3) The control group with no preliminary irradiation. Finally all groups were irradiated once with gamma-rays at 600 r. Results showed that preliminary irradiation with continuous microwaves tended to increase survival, but with pulsed microwaves the death rate was unaltered as against the control, and death ensued earlier. With con-

Card 1/2

The effect of non-thermal ...

tinuous microwaves hemorrhage (nose) was later and more frequent than in the two other groups. Further experimental investigation is required.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut kurortologii i fizioterapii, Moscow (Central Scientific Research Institute for Health Resort Science and Physiotherapy, Moscow)

SUBMITTED: May 4, 1961

Card 2/2

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39278
S/219/62/053/001/005/007
1015/1215

AUTHOR: Presman, A. S. and Levitina, N. A.

TITLE: Effect of non-thermic microwaves on the cardiac rhythm in animals

PERIODICAL: Byulleten' eksperimental'noy biologii i meditsiny, v. 53, no. 1, 1962, 41–44

TEXT: 8 female rabbits weighing 3.0–3.5 kg. were irradiated (intensity 7–12 m V/cm^2) 12 to 13 times, for twenty-minute periods with no ensuing thermal effects (non-thermic intensity). Continuous nonthermic irradiation brought about an alteration in the cardiac rhythm due to a reflex-vegetative response. These changes were reversible. It was assumed possible that this reflex-vegetative response was evoked by microwaves which affect not only the superficial reflexogenic zones (cutaneous and vascular receptors) but also the brain cells. There are 2 figures and 1 table.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut kurortologii i fizioterapii, Moscow (Central Institute of Health Resort and Physiotherapy Research)

SUBMITTED: March 16, 1961

Card 1/1

PRESMAN, A.S.; LEVITINA, N.A.

Non-thermal action of microwaves on the rhythm of cardiac contractions in animals. Report No.2: Studies of the action of impulse microwaves. Biul. eksp. biol. i med. 53 no.2:39-43 F '62. (MIRA 15:3)

1. Iz TSentral'nogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.

(HEART BEAT)
(MICROWAVES--PHYSIOLOGICAL EFFECT)

ACCESSION NR: AP4042356 S/0219/64/058/007/0067/0069

AUTHOR: Levitina, N. A.

TITLE: Effect of microwaves on cardiac rhythm of rabbits during local irradiation of body areas

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny*, v. 58, no. 7, 1964, 67-69

TOPIC TAGS: microwave irradiation, microwave chronotropic effect, cardiac rhythm change, local microwave irradiation, ventral body area, high intensity microwave irradiation, skin receptor

ABSTRACT: The dependence of cardiac rhythm, a chronotropic effect, on microwave radiation conditions and location of body areas radiated was investigated in a series of experiments. Rabbits were exposed to local microwave irradiation in 12 dorsal and ventral body areas using two types of high-intensity microwave conditions: continuous microwave pulses (lambda = 12.5 cm, pulse duration 100 millisec, pulse frequency 2/sec, irradiation intensity 740 to 1,250 milliwatt/cm^2) and a microwave pulse series (lambda = 10 cm, series

Card 1/3

ACCESSION NR: AP4042356

duration 1000 millisec, series frequency 2/sec, pulse frequency in series 700 cycles/sec, irradiation intensity 350 to 385 milliwatt/cm^2). Cardiac rhythm was recorded by a modified Al'var electrocardiograph 30 min before irradiation, during the 20 min irradiation period, and 20 min after irradiation. Additional experiments were conducted under the same radiation conditions but with the skin of the body areas anesthetized. The results of this study were compared with literature data on low-intensity microwave irradiation to characterize the chronotropic effect. Local microwave irradiation of ventral body areas reduces cardiac rhythm regardless of radiation conditions and intensity. Irradiation of dorsal body areas is accompanied by a cardiac rhythm dependent in nature and degree on microwave radiation conditions and intensity, with a low microwave intensity producing a positive effect and a high intensity producing a negative one. Irradiation of the same body areas with the skin anesthetized does not change cardiac rhythm. This absence of change confirms the hypothesis that reduced cardiac rhythm is the result of microwaves acting on the skin receptors. Orig. art. has: 1 table.

Card 2/3

ACCESSION NR: AP4042356

ASSOCIATION: Tsentral'nyy institut kurortologii i fizioterapii, Moscow (Central Institute of Balneology and Physical Therapy)

SUBMITTED: 29Apr63 ATD PRESS: 3067 ENCL: 00

SUB CODE: LS, EC NR REF SOV: 004 OTHER: 000

Card 3/3

PRESMAN, A.S.; LEVITINA, N.A.

Effect of nonthermal microwave irradiation on the resistance of animals to gamma irradiation. Radiobiologiia 2 no.1:170-171 Ja '62 (MIRA 18:1)

LEVITINA, N.A.

Effect of microwaves on the cardiac rhythm in rabbits following the irradiation of individual segments of the body. Biul.eksp. biol.i med. 58 no.7:67-69 Jl '64. (MIRA 18:2)

1. TSentral'nyy institut kurortologii i fizioterapii, Moskva.
Submitted April 29, 1963.

ACC NR: AP7001832 SOURCE CODE: UR/0219/66/062/012/0064/0066

AUTHOR: Levitina, N. A.

ORG: Institute of Nutrition/Director-Corresponding member AMN SSSR A. A. Pokrovskiy/, AMN SSSR, Moscow (Institut pitaniya, AMN SSSR)

TITLE: Investigation of the nonthermal effect of microwaves on the cardiac rhythm of frogs

SOURCE: Byulleten' iksperimental'noy biologii i meditsiny, v. 62, no. 12, 1966, 64-66

TOPIC TAGS: microwave biologic effect, animal experiment, central nervous system, cardiovascular system, heart rate

ABSTRACT: The purpose of this experiment was to study the extracardiac and spontaneous effects of microwaves on the cardiac rhythm of the frog. Five experiments were conducted in the Central Scientific Research Institute of Health Resorts and Physical Therapy. One series was designed to study the characteristics of the effects of microwaves on the cardiac rhythm of intact frogs. Here, one group of frogs was irradiated on the spine while the other was irradiated on the dorsal surface of the head. Another series was designed to clarify the role of individual components of the reflex arc in the mechanism of microwave effects on the heart. This series was broken down into three groups: 1) spinal irradiation of

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anesthetized frogs; 2) spinal irradiation of frogs with denervated hearts; 3) irradiation of the denervated heart in situ. Cardiac rhythm was recorded using needle electrodes hooked up to an "Alvar" electrocardiograph. A LMS-253-A microwave generator (λ = 12.5 cm) created a nonpulsed field of 0.03—0.06 mw/cm^2 which did not have a demonstrable thermal effect. The species Rana temporaria weighing 30—40 g was used. Irradiation commenced 10—15 min after stabilization of cardiac rhythm and lasted for 20 min (spine and head) or 15 min (heart). Cardiac rhythm was recorded for 20 min before and 10—15 min after irradiation. In the spinal irradiation series (intact frogs), the following changes (±6% of normal) in cardiac rhythm were noted: retardation—50%; acceleration—20%; two-phase shift—10%; no change—20%. In the series where the heads of intact frogs were irradiated dorsally, no retardation of cardiac rhythm was noted. An acceleration (9% higher on the average) of rhythm was noted in 80% of the cases. There was no change in the remaining 20%. Spinal irradiation of anesthetized frogs produced no changes in cardiac rhythm. The same was true of spinally irradiated frogs with denervated hearts, and of frogs whose denervated hearts were irradiated in situ. Thus, the first and second series of experiments indicated that spinal irradiation has a negative chronotropic effect on cardiac rhythm while dorsocranial irradiation has a positive one. Similar results were obtained in earlier experiments with rabbits (Presman, A. S., and N. A. Levititina. Byulleten' eksperimental'noy biologii i

Card 2/3

ACC NR: AP7001832

meditsiny, no. 1, 1962. 41; no. 2, 1962. 39). The results of the remaining series of this experiment indicate that inhibition of the central nervous system, disruption of extracardiac innervation, or irradiation of the denervated heart in situ preclude a chronotropic effect. These data would tend to confirm the reflex nature of the chronotropic effects of microwaves.

SUB CODE: 06/ SUBM DATE: 27Apr65/ ORIG REF: 003/ ATD PRESS: 5112

Card 3/3

LEVITINA, P. E.

116

Glycemic curve, ketonemia and galactosuria in dysentery patients after loading with galactose. Z. M. Dinershtein, P. E. Levitina and S. V. Rodkin. *Pediatriya* 1940, No. 7-8, 26-31.—Administration of galactose to children ill with dysentery, with the subsequent detn. of galactosuria, justifies itself as a method for the functional study of the liver, if the investigation is done repeatedly, and the glycemic curves are used to judge the functional condition of the liver. It is shown that in dysentery there is a lowering of the liver function in respect to galactose assimilation. With the gradual improvement of the patients there is a gradual disappearance of the ketone bodies in the blood. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MARKUS, L.M.; ZAKHAR'IEVSKAYA, N.N.; VASIINA, Ye.N.; LEVITINA, P.Ye.; RATINA, S.M.

Treatment of tabetic atrophy of optic nerves by intramuscular injection of sulfa suspensions. Vest.vener. no.2:56-57 Mr-Ap '50. (CLML 19:3)

1. Of the Syphilological Clinic (Head -- Prof. L.M.Markus), Ukrainian Scientific-Research Skin-Venereological Institute (Director -- Prof. A.M.Krichevskiy).

KRATINOVA, Ye.R.; LEVITINA, P.Ye.

Effect of ultraviolet erythema doses on excretion of creatinine in children with rickets. Vopr. pediat. 19 no.2:13-16 1951. (CLML 20:8)

1. Of Khar'kov Scientific Research Institute for the Care of Mothers and Children (Director--Candidate Medical Sciences A.G. Logunova).